WHAT IS CLAIMED IS:

1. A polyphase generator (10) having an armature winding (18) comprising a plurality of phase windings (20), wherein each of said phase windings has a first winding segment (56) and a second winding segment (58), wherein the first winding segment of each of said phase windings is connected in a Delta topology (60) to first winding segments of other of said phase windings, and wherein said second winding segment of said each of said phase windings is connected in a Wye topology (66) to a plurality of said first winding segments.

2. A polyphase generator (10) as in claim 1 wherein said Wye topology includes a node (50) connecting two of said first winding segments and a first end of said second winding segment.

3. A polyphase generator (10) as in claim 2 wherein a second end (70)of said second winding segment is connected to an output terminal of said generator.

4. A polyphase generator (10) as in claim 1 wherein each of said phase windings includes a plurality of end turns (36) and a electrical contact tap (50) on one of said end turns establishes a junction (50) between said first winding segment and second winding segment.

5. A polyphase generator (10) as in claim 4 wherein the one of said end turns with the contact tap (50) is alternatively connectable to another of said plurality of end turns (36).

6. A polyphase generator (10) as in claim 1 having three of said phase windings and further comprising a three-phase power output.

7. A polyphase generator (10) as in claim 1 wherein a line-to-line output voltage level (V_{LL}) (30) of said generator is expressed as:

$$V_{LL} = \left| Xe^{j\pi/6} + \sqrt{3}\,(1 - X) \right|$$

where: "V_{LL}" is the line-to-line voltage as a proportion of a phase winding voltage level (24);

"X" is a fraction of a phase winding arranged in a Delta topology (60), and

"j" is a complex operator, wherein $j^2 = -1$.